

Collaborative game playing support by learning of Japanese traditional culture in the 3D metaverse

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This research introduces collaborative game play supporting the learning of Japanese traditional culture in the 3D metaverse. The metaverse is a platform where numerous participants, through avatars, can share in a virtual 3D space online. It also can create a situation similar to the real world through the virtual space and interaction between avatars. These features of the metaverse are beneficial to the implementation of a study platform for those who cannot visit a country or area.

First, we give a summary of a learning environment built as a part SecondLife (SL). There are real cultural properties such as a Shinto shrine, Noh stage and Exhibition halls. We also implemented a mechanism to allow participants to experience real culture such as a Noh dance performance or the ritual practices of visitors to shrines. Next, we show the results of collaborative game playing. In this experiment, both international students (newcomers) and Japanese students (old timers) participated. Both talked about the culture and customs surrounding the Shrine while searching together for a virtual space based on a set of rules. In the process, the situational cultural learning between newcomers and old timers was enabled. Finally, we discuss the advantages and limitations of the learning process in our metaverse platform in terms of collaborative game play simulating Japanese culture.